

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2000

Patent fees are subject to annual revision.  
Small Entity payments must be supported by a small entity statement,  
otherwise large entity fees must be paid. See Forms PTO/SB09-12.  
See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT (\$) **345**

## Complete if Known

Application Number  
Filing Date  
First Named Inventor **Pasi Loukas**  
Examiner Name  
Group / Art Unit  
Attorney Docket No.



METHOD OF PAYMENT (check one)		FEE CALCULATION (continued)																																																																																																																													
<p>1. <input type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:</p> <p>Deposit Account Number <input type="text"/></p> <p>Deposit Account Name <input type="text"/></p> <p><input type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17</p> <p>2. <input checked="" type="checkbox"/> Payment Enclosed: <input checked="" type="checkbox"/> Check <input type="checkbox"/> Money Order <input type="checkbox"/> Other</p>		<p>3. ADDITIONAL FEES</p> <table border="1"><thead><tr><th>Large Entity Fee Code (\$)</th><th>Small Entity Fee Code (\$)</th><th>Fee Description</th><th>Fee Paid</th></tr></thead><tbody><tr><td>105</td><td>130 205 65</td><td>Surcharge - late filing fee or oath</td><td></td></tr><tr><td>127</td><td>50 227 25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr><tr><td>139</td><td>130 139 130</td><td>Non-English specification</td><td></td></tr><tr><td>147</td><td>2,520 147 2,520</td><td>For filing a request for reexamination</td><td></td></tr><tr><td>112</td><td>920* 112 920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr><tr><td>113</td><td>1,840* 113 1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr><tr><td>115</td><td>110 215 55</td><td>Extension for reply within first month</td><td></td></tr><tr><td>116</td><td>380 216 190</td><td>Extension for reply within second month</td><td></td></tr><tr><td>117</td><td>870 217 435</td><td>Extension for reply within third month</td><td></td></tr><tr><td>118</td><td>1,360 218 680</td><td>Extension for reply within fourth month</td><td></td></tr><tr><td>128</td><td>1,850 228 925</td><td>Extension for reply within fifth month</td><td></td></tr><tr><td>119</td><td>300 219 150</td><td>Notice of Appeal</td><td></td></tr><tr><td>120</td><td>300 220 150</td><td>Filing a brief in support of an appeal</td><td></td></tr><tr><td>121</td><td>260 221 130</td><td>Request for oral hearing</td><td></td></tr><tr><td>138</td><td>1,510 138 1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr><tr><td>140</td><td>110 240 55</td><td>Petition to revive - unavoidable</td><td></td></tr><tr><td>141</td><td>1,210 241 605</td><td>Petition to revive - unintentional</td><td></td></tr><tr><td>142</td><td>1,210 242 605</td><td>Utility issue fee (or reissue)</td><td></td></tr><tr><td>143</td><td>430 243 215</td><td>Design issue fee</td><td></td></tr><tr><td>144</td><td>580 244 290</td><td>Plant issue fee</td><td></td></tr><tr><td>122</td><td>130 122 130</td><td>Petitions to the Commissioner</td><td></td></tr><tr><td>123</td><td>50 123 50</td><td>Petitions related to provisional applications</td><td></td></tr><tr><td>126</td><td>240 126 240</td><td>Submission of Information Disclosure Stmt</td><td></td></tr><tr><td>581</td><td>40 581 40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr><tr><td>146</td><td>690 246 345</td><td>Filing a submission after final rejection (37 CFR § 1.129(a))</td><td></td></tr><tr><td>149</td><td>690 249 345</td><td>For each additional invention to be examined (37 CFR § 1.129(b))</td><td></td></tr><tr><td colspan="4">Other fee (specify) _____</td></tr><tr><td colspan="4">Other fee (specify) _____</td></tr><tr><td colspan="4">* Reduced by Basic Filing Fee Paid</td></tr><tr><td colspan="2">SUBTOTAL (3) (\$)</td><td colspan="2"><b>0</b></td></tr></tbody></table>		Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid	105	130 205 65	Surcharge - late filing fee or oath		127	50 227 25	Surcharge - late provisional filing fee or cover sheet		139	130 139 130	Non-English specification		147	2,520 147 2,520	For filing a request for reexamination		112	920* 112 920*	Requesting publication of SIR prior to Examiner action		113	1,840* 113 1,840*	Requesting publication of SIR after Examiner action		115	110 215 55	Extension for reply within first month		116	380 216 190	Extension for reply within second month		117	870 217 435	Extension for reply within third month		118	1,360 218 680	Extension for reply within fourth month		128	1,850 228 925	Extension for reply within fifth month		119	300 219 150	Notice of Appeal		120	300 220 150	Filing a brief in support of an appeal		121	260 221 130	Request for oral hearing		138	1,510 138 1,510	Petition to institute a public use proceeding		140	110 240 55	Petition to revive - unavoidable		141	1,210 241 605	Petition to revive - unintentional		142	1,210 242 605	Utility issue fee (or reissue)		143	430 243 215	Design issue fee		144	580 244 290	Plant issue fee		122	130 122 130	Petitions to the Commissioner		123	50 123 50	Petitions related to provisional applications		126	240 126 240	Submission of Information Disclosure Stmt		581	40 581 40	Recording each patent assignment per property (times number of properties)		146	690 246 345	Filing a submission after final rejection (37 CFR § 1.129(a))		149	690 249 345	For each additional invention to be examined (37 CFR § 1.129(b))		Other fee (specify) _____				Other fee (specify) _____				* Reduced by Basic Filing Fee Paid				SUBTOTAL (3) (\$)		<b>0</b>	
Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid																																																																																																																												
105	130 205 65	Surcharge - late filing fee or oath																																																																																																																													
127	50 227 25	Surcharge - late provisional filing fee or cover sheet																																																																																																																													
139	130 139 130	Non-English specification																																																																																																																													
147	2,520 147 2,520	For filing a request for reexamination																																																																																																																													
112	920* 112 920*	Requesting publication of SIR prior to Examiner action																																																																																																																													
113	1,840* 113 1,840*	Requesting publication of SIR after Examiner action																																																																																																																													
115	110 215 55	Extension for reply within first month																																																																																																																													
116	380 216 190	Extension for reply within second month																																																																																																																													
117	870 217 435	Extension for reply within third month																																																																																																																													
118	1,360 218 680	Extension for reply within fourth month																																																																																																																													
128	1,850 228 925	Extension for reply within fifth month																																																																																																																													
119	300 219 150	Notice of Appeal																																																																																																																													
120	300 220 150	Filing a brief in support of an appeal																																																																																																																													
121	260 221 130	Request for oral hearing																																																																																																																													
138	1,510 138 1,510	Petition to institute a public use proceeding																																																																																																																													
140	110 240 55	Petition to revive - unavoidable																																																																																																																													
141	1,210 241 605	Petition to revive - unintentional																																																																																																																													
142	1,210 242 605	Utility issue fee (or reissue)																																																																																																																													
143	430 243 215	Design issue fee																																																																																																																													
144	580 244 290	Plant issue fee																																																																																																																													
122	130 122 130	Petitions to the Commissioner																																																																																																																													
123	50 123 50	Petitions related to provisional applications																																																																																																																													
126	240 126 240	Submission of Information Disclosure Stmt																																																																																																																													
581	40 581 40	Recording each patent assignment per property (times number of properties)																																																																																																																													
146	690 246 345	Filing a submission after final rejection (37 CFR § 1.129(a))																																																																																																																													
149	690 249 345	For each additional invention to be examined (37 CFR § 1.129(b))																																																																																																																													
Other fee (specify) _____																																																																																																																															
Other fee (specify) _____																																																																																																																															
* Reduced by Basic Filing Fee Paid																																																																																																																															
SUBTOTAL (3) (\$)		<b>0</b>																																																																																																																													
<p>1. BASIC FILING FEE</p> <table border="1"><thead><tr><th>Large Entity Fee Code (\$)</th><th>Small Entity Fee Code (\$)</th><th>Fee Description</th><th>Fee Paid</th></tr></thead><tbody><tr><td>101</td><td>690 201 345</td><td>Utility filing fee</td><td><b>345</b></td></tr><tr><td>106</td><td>310 206 155</td><td>Design filing fee</td><td></td></tr><tr><td>107</td><td>480 207 240</td><td>Plant filing fee</td><td></td></tr><tr><td>108</td><td>690 208 345</td><td>Reissue filing fee</td><td></td></tr><tr><td>114</td><td>150 214 75</td><td>Provisional filing fee</td><td></td></tr><tr><td colspan="2">SUBTOTAL (1) (\$)</td><td colspan="2"><b>345</b></td></tr></tbody></table>		Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid	101	690 201 345	Utility filing fee	<b>345</b>	106	310 206 155	Design filing fee		107	480 207 240	Plant filing fee		108	690 208 345	Reissue filing fee		114	150 214 75	Provisional filing fee		SUBTOTAL (1) (\$)		<b>345</b>																																																																																																			
Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid																																																																																																																												
101	690 201 345	Utility filing fee	<b>345</b>																																																																																																																												
106	310 206 155	Design filing fee																																																																																																																													
107	480 207 240	Plant filing fee																																																																																																																													
108	690 208 345	Reissue filing fee																																																																																																																													
114	150 214 75	Provisional filing fee																																																																																																																													
SUBTOTAL (1) (\$)		<b>345</b>																																																																																																																													
<p>2. EXTRA CLAIM FEES</p> <table border="1"><thead><tr><th>Large Entity Fee Code (\$)</th><th>Small Entity Fee Code (\$)</th><th>Fee Description</th><th>Fee Paid</th></tr></thead><tbody><tr><td>103</td><td>18 203 9</td><td>Claims in excess of 20</td><td></td></tr><tr><td>102</td><td>78 202 39</td><td>Independent claims in excess of 3</td><td></td></tr><tr><td>104</td><td>260 204 130</td><td>Multiple dependent claim, if not paid</td><td></td></tr><tr><td>109</td><td>78 209 39</td><td>** Reissue independent claims over original patent</td><td></td></tr><tr><td>110</td><td>18 210 9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr><tr><td colspan="2">SUBTOTAL (2) (\$)</td><td colspan="2"><b>0</b></td></tr></tbody></table>		Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid	103	18 203 9	Claims in excess of 20		102	78 202 39	Independent claims in excess of 3		104	260 204 130	Multiple dependent claim, if not paid		109	78 209 39	** Reissue independent claims over original patent		110	18 210 9	** Reissue claims in excess of 20 and over original patent		SUBTOTAL (2) (\$)		<b>0</b>																																																																																																			
Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid																																																																																																																												
103	18 203 9	Claims in excess of 20																																																																																																																													
102	78 202 39	Independent claims in excess of 3																																																																																																																													
104	260 204 130	Multiple dependent claim, if not paid																																																																																																																													
109	78 209 39	** Reissue independent claims over original patent																																																																																																																													
110	18 210 9	** Reissue claims in excess of 20 and over original patent																																																																																																																													
SUBTOTAL (2) (\$)		<b>0</b>																																																																																																																													

SUBMITTED BY		Complete (if applicable)	
Name (Print/Type)	<b>Pasi Loukas</b>	Registration No. (Attorney/Agent)	
Signature	<i>Pasi Loukas</i>	Telephone	<b>+358-16-3799/36</b>
		Date	<b>5/30/2000</b>

### WARNING:

Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

**STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)

Applicant, Patentee, or Identifier: Pasi Loukas

Application or Patent No.: \_\_\_\_\_

Filed or Issued: \_\_\_\_\_

Title: Variable Wavelength Impulse Transmission

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.  
☒ the application identified above.  
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.  
☐ Each such person, concern, or organization is listed below.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

Pasi Loukas  
NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

Pasi Loukas  
Signature of inventor

Signature of inventor

Signature of inventor


5/30/2000  
Date

Date

Date

06-05-00

A

Please type a plus sign (+) inside this box → 

Approved for use through 09/30/2000. OMB 0651-0032

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 C.F.R. § 1.63(b))

Attorney Docket No.

First Inventor or Application Identifier

Pasi Loukas

Title

Variable Wavelength Impulse Transmission

Express Mail Label No.

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages 7]  
(preferred arrangement set forth below)
- Descriptive title of the invention
  - Cross References to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 2]
4. Oath or Declaration [Total Pages 2]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 16 completed)
- i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

\* NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.29).

**ADDRESS TO:**

Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

5. ☐ Microfiche Computer Program (Appendix)
6. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Copy
- b. ☐ Paper Copy (identical to computer copy)
- c. ☐ Statement verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

7. ☐ Assignment Papers (cover sheet & document(s))
8. ☐ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
9. ☐ English Translation Document (if applicable)
10. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☐ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
13. ☒ \* Small Entity Statement(s) ☒ Statement filed in prior application, Status still proper and desired (PTO/SB/09-12)
14. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
15. ☒ Other: **REPORT OF CORRECTIONS MADE TO PROVISIONAL APPLICATION**

**16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:**

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No. \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_

Group / Art Unit: \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**17. CORRESPONDENCE ADDRESS**☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name Pasi Loukas

Address Kemintie 969

City Rovaniemi State — Zip Code 96700

Country FINLAND Telephone +358-16-3799136 Fax +358-16-3799579

Name (Print/Type)

Pasi Loukas

Registration No. (Attorney/Agent)

Signature

Pasi Loukas

Date

5/30/2000

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

06/05/00  
Jc826 U.S. PTO

00697270-060500

PTO/SB/05 (4/88)  
09/507270  
06/05/00

**REPORT OF CORRECTIONS MADE TO PROVISIONAL PATENT APPLICATION WHICH  
BENEFITS CLAIMED IN THIS APPLICATION**

I request your permission for the following corrections that I have made to provisional patent application which benefits are claimed in this application:

-I am Finnish citizen and because of language difficulties I have used erroneously the word "bandwidth" where I meant "wavelength". From the context can be seen in each case that I have done it consistently every time and meant "wavelength". So I have replaced in the text the word "bandwidth" every time it is mentioned with the word "wavelength".

-In the first paragraph of the specification was a sentence containing technical error. It was in original form as follows (the word bandwidth replaced with wavelength):

"In case A if there are number  $n$  separate impulse wavelengths, then one impulse is able to carry number  $n$  bits of data."

I have corrected it. The sentence is not relevant for the subject matter, it is only for to help reader get better idea of it. If you cannot accept it, it can be stricken through. The sentence is in new form as follows:

"In case A if there are number  $n$  separate impulse wavelengths, then one impulse is able to carry number of bits of data equal to 2-based logarithm of  $n$ ."

If the correction cannot be accepted, it is needful also to strike through the next sentence after that (due to the context), which is below:

"In case B the transmission principle is the same as in case A, except that there are no absolute limit how many bits of data one impulse can carry, it is limited only by the transmission device's ability to distinguish closely adjacent wavelength impulses."

-In drawings I have moved the headers and the description footnotes to the description section of figures. Also I have corrected the erroneous unit marking "V or dB" as "V" in the vertical axis in figures 1 and 2A, 2B, 2C.

-In addition to the above mentioned corrections, I have corrected some misspellings and made the layout better conform to the formal requirements.

With respect



Pasi Loukas, Finland

00507270 060500